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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,568	01/14/2004	Michiaki Omura	P/1929-91	5922
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EXAMINER JOO, JOSHUA				
ART UNIT 2454		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/758,568

**Applicant(s)**

OMURA, MICHIAKI

**Examiner**

JOSHUA JOO

**Art Unit**

2454

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Interval Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

***Detailed Action***

This Office action is in response to Applicant's communication filed on 08/12/2009.

Claims 1-9 are pending for examination.

**Examiner's Note**

This Office action replaces the prior non-final Office action dated 11/24/2009 and includes an omission from the prior non-final Office action.

**Continued Examination Under 37 CFR 1.114**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/22/2009 has been entered.

**Response to Arguments**

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection. New ground(s) of rejection are necessitated by Applicant's amendment.

**Claim Objections**

Claims 8-9 are objected to because of the following informalities:

- a) Regarding claim 8, "said signal" should be changed to "said first or second signal" to clearly indicate which signal "said signal" is referring to in the claim.

Appropriate correction is required.

**Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 1, Applicant is seeking to patent a gateway comprising sections. The gateway does not comprise any functional hardware (e.g. processor/cpu), and the sections are not required to be hardware. The claimed invention of a gateway may be considered as software, and software does not meet one of the four categories of invention and is not statutory.

Regarding claim 5, Applicant is seeking to patent a system comprising a gateway, terminals, and a fee-charging system. The system also does not comprise any functional hardware, and elements in the system are not required to be hardware (e.g. page 10, lines 21-25, page 11, lines 24-25. software terminal.). The claimed invention of a system may be considered as software system, and software does not meet one of the four categories of invention and is not statutory.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tinsley, US Patent #6,967,956 (Tinsley hereinafter), in view of Kimura et al. US Publication #2002/0143975 (Kimura hereinafter) and Kalavade et al. US Publication #2003/0051041 (Kalavade hereinafter).

As per claim 1, Tinsley teaches substantially the invention as claimed including a gateway for connecting a first network and a second network using a signal format different from that of the first network, said gateway comprising:

a conversion section operable to convert a first signal used in the first network to a second signal used in the second network, and the second network used in the second network to the first signal used in the first network, when communication is performed between a terminal connected to the first network and a terminal connected to the second network (col. 7, lines 23-27. Route packets between two dissimilar networks. col. 8, lines 25-36; col. 12, lines 64-67. Translate first signal to a second signal.);

a detection section operable to detect as conversion-process information (col. 10, lines 31-38; col. 13, lines 26-36. Generate accounting message.)

a network-connecting section operable to connect to at least one of the first network and the second network and operable to transmit conversion-process information to a fee-charging system (col. 7, lines 50-55; col. 11, lines 1-5, 20-35, 54-67; col. 13, lines 56-67. Communicate messages to server. Create usage and measurement data for billing.)

Tinsley does not specifically teach of a detecting as information a time said conversion section spent to convert the first signal or the second signal. Tinsley teaches of a fee-charging system but not specifically of the first network or the second network.

Kimura teaches of tracking a time spent on converting data to charge a fee (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to detect as conversion-process information, time spent on converting data to charge a fee. The motivation for the suggested combination is that Kimura's teachings would improve Tinsley's teachings by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Kalavade teaches of a gateway connecting a first network and a second network and providing information to a fee-charging system of the first or second network (Paragraphs 0012, 0015; claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the fee-charging system to be of a first network or the second network. The motivation for the suggested combination is that Kalavade's teachings would improve the suggested system by utilizing existing billing systems to provide services to users (Paragraph 0067, 0220).

As per claim 5, Tinsley teaches substantially the invention as claimed including a system for charging fees for communication between networks of different types, said system comprising:

a first terminal operable to perform a call control, the first terminal being connected to a first network; a second terminal operable to respond to the call control performed by the first terminal, the second terminal being connected to a second network (col. 4, lines 40-45, col. 7, lines 23-27. Route messages between two dissimilar networks. col. 3, lines 24-27, 35-41. Signaling for call control. col. 1, lines 59-66; col. 11, lines 47-56. Call control, e.g. setup.); and

a gateway operable to connect the first network and the second using a second signal format different from a first signal format used by the first network (col. 7, lines 23-27; col. 8, lines 25-36. Gateway connects two dissimilar networks.);

the gateway converts a first signal of the first signal format from the first network to a second signal of the second signal format of the second network and transmits the second signal to the second network, converts the second signal from the second network to the first signal of the first network and transmits the first signal to the first network, detects as conversion-process information, and transmits the conversion-process information to the fee-charging system (col. 8, lines 25-36; col. 12, lines 64-67. Translate first signal to a second signal.), and

the fee-charging system performs a fee-charging process in accordance with the conversion-process information, to charge a fee for a user of the first terminal (col. 11, lines 1-5, 20-35, 54-67; col. 13, lines 56-67. Communicate messages to server. Create usage and measurement data for billing.).

Tinsley does not specifically teach the first network comprising a fee-charging system and detect as information, a time spent to convert the first signal or the second signal.

Kimura teaches of tracking a time spent on converting data to charge a fee (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to detect as conversion-process information, time spent on converting data to charge a fee. The motivation for the suggested combination is that Kimura's teachings would improve Tinsley's teachings by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Kalavade teaches of a gateway connecting a first network and a second network and providing information to a fee-charging system of the first network (Paragraphs 0012, 0015; claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the fee-charging system to be of the first network. The motivation for the suggested combination is that Kalavade's teachings would improve the suggested system by utilizing existing billing systems to provide services to users (Paragraph 0067, 0220).

As per claim 8, Tinsley teaches substantially the invention as claimed including a method of charging fees for communication between networks of different types, comprising the steps of:

connecting a first network and a second network using a signal format different from that of the first network by means of a gateway operable to convert a first signal from a first terminal connected to the first network to a second signal suitable for the signal format of the second network and to convert the

second signal from a second terminal connected to the second network to the first signal suitable for the signal format of the first network (col. 7, lines 23-27; col. 8, lines 25-36. Gateway connects two dissimilar networks. col. 8, lines 25-36; col. 12, lines 64-67. Translate first signal to a second signal.);

detecting as conversion-process information; transmitting the conversion-process information to a fee-charging system, by the gateway (col. 11, lines 1-5, 20-35, 54-67; col. 13, lines 56-67. Communicate messages to server.);

charging a fee for a user of a calling-side terminal, the calling-side terminal being one of the first terminal and the second terminal, said fee being fixed or calculated on a basis of a communication time based on the conversion-process information by the fee-charging system (col. 11, lines 1-5, 20-35, 47-67; col. 13, lines 56-67. Generate billing to subscriber based on usage information, e.g. "call", duration.).

Tinsley teaches of the first or second signal said signal having been transmitted after the first terminal and the second terminal have been connected to each other by the gateway (col. 1, lines 59-66, col. 8, lines 25-30. Call control signals.). Tinsley does not specifically teach as information, a time spent to convert the first or second signal said signal, a fee-charging system of the network to which the first terminal or the second terminal that is calling side is connected.

Kimura teaches of tracking a time spent on converting data to charge a fee (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to detect as conversion-process information, time spent on converting data to charge a fee. The motivation for the suggested combination is that Kimura's teachings would improve Tinsley's teachings by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Kalavade teaches of a gateway providing information to a fee-charging system of a network of a terminal that is a calling side (Paragraphs 0012, 0015; claim 1).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the fee-charging system to be of a network that a terminal that is calling side is connected such that the information is sent to a fee-charging system of a network of a calling side. The motivation for the suggested combination is that Kalvade's teachings would improve the suggested system by utilizing existing billing systems to provide services to users (Paragraph 0067, 0220).

As per claim 2, Tinsley, Kimura, and Kalvade teach the gateway according to claim 1. Tinsley further teaches wherein said conversion section converts at least one of a call-control signal generated by a call-connection signaling, an audio signal generated by an audio CODEC and a video signal generated by a video CODEC (col. 8, lines 19-32; claim 5. Call signaling, call control, e.g. SS7, NCCP.).

As per claim 6, Tinsley, Kimura, and Kalvade teach the system according to claim 5. Tinsley further teaches wherein the gateway detects the conversion-process information after the first terminal and the second terminal have been connected to each other (col. 11, lines 20-21, 30-35, 46-55. Usage information includes duration of call.).

As per claim 9, Tinsley teaches the method according to claim 8, wherein the conversion-process information includes at least one of the time spent and the amount of data (col. 11, lines 36-40, 47-51. Usage information includes counts of message received and duration of call.) but not specifically at least one of time spent to convert signals in an audio CODEC and VIDEO CODEC and amount of data converted.

Kimura teaches of conversion-process information including an amount of data converted (Paragraphs 0116, 0121).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the conversion-process information to include at least an amount of data converted. The motivation for the suggested combination is that Kimura's teachings would improve the suggested system by enabling reduction in data processing in terminals and providing charging based on different conversion fees (Paragraphs 0010, 0115).

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tinsley, Kimura, and Kalavade, in view of Jabri, US Publication #2003/0028643 (Jabri hereinafter).

As per claim 3, Tinsley, Kimura, and Kalavade teach the gateway according to claim 2. Tinsley further teaches wherein said conversion section comprises a signaling gateway unit which converts the call-control and, wherein said detected section detects the conversion-process information used in a conversion process in the gateway unit (col. 8, lines 19-32; Claim 5. Call signaling, call control, E.g. SS7, NCCP.). Tinsley teaches of providing translation for H.323 protocol but does not explicitly teach of a media gateway unit which converts the audio signal and the video signal. Tinsley teaches of conversion process but not specifically in the media gateway unit.

Jabri teaches of a media gateway for converting audio codec signal and video codec signal (Paragraphs 0008, 0014, 0049).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the conversion section as taught by the suggested system to comprise a media unit which converts the audio codec signal and the video codec signal as taught by Jabri. The motivation for the suggested combination is that Jabri's teachings would improve the suggested system by enhancing the gateway's capabilities, thus enabling the gateway to handle additional types of protocols and processing different media types.

As per claim 7, Tinsley, Kimura, and Kalavade teach the system according to claim 5, wherein the gateway detects the conversion-process information about signals but not specifically about at least one a signal generated by an audio CODEC and a signal generated by a video CODEC.

Jabri teaches of a media gateway that converts signals generated by audio codec and video codec (Paragraphs 0008, 0014, 0049).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the signals to include a signal generated by an audio CODEC and signal generated by video CODEC. The motivation for the suggested combination is that Jabri's teachings would improve the suggested system by enhancing the gateway's capabilities, thus enabling the gateway to handle additional types of protocols and processing different media types.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tinsley, Kimura, and Kalavade, in view of Kauhanen, WO 02/052825 (Published 07/04/2002, Attached, Kauhanen hereinafter) and Jabri.

As per claim 4, Tinsley does not specifically teach the gateway according to claim 2 or 3, wherein the conversion of the call-control signal is conversion between a Q.931 signal and an SIP signal, the conversion of the audio signal is conversion between an AMR bit stream and a G.723.1 signal, and the conversion of the video signal is conversion between an MPEG4 bit stream and an H.263 signal.

Kauhanen teaches of conversion between a Q.931 signal and a SIP signal (Page 18, lines 18-22, Page 20, lines 1-3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the call-control signal to be a conversion between Q.931 signal and a SIP signal. The motivation for the suggested combination is that Kauhanen's teachings would improve the

suggested system by enhancing the gateway's capabilities and enabling handling of additional types of protocols and processing different media types or components (Page 4, lines 16-20).

Jabri teaches of conversion of audio signal between an AMR bit stream and a G.723.1 signal and conversion of video signal between an MPEG4 bit stream and an H.263 signal (Paragraph 0014).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to enable conversion of an audio signal between an AMR bit stream and a G.723.1 signal and conversion of a video signal between an MPEG4 bit stream and an H.263 signal. The motivation for the suggested combination is that Jabri's teachings would improve the suggested system by enhancing the gateway's capabilities, thus enabling the gateway to handle additional types of protocols and processing different media types.

### **Conclusion**

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Kage et al. US Publication #2001/0034599 teaches of counting a period of time required for translating a signal and charging a fee for the translation.
- b) Leung US Publication #2002/0087711 teaches of a gateway translating between audio and video codecs.

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Friday 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Joshua Joo/  
Examiner, Art Unit 2454